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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,749	12/19/2001	Joseph D. S. Deng	JCLA8479	9129

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EXAMINER

HOLLINGTON, JERMELE M

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/033,749

Applicant(s)

DENG ET AL.

Examiner

Jermele M. Hollington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 03 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1,3-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,3-6,8-11 and 13-15 is/are rejected.
- 7) ☐ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on 03 June 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings were received on June 3, 2002. These drawings are approved.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 4 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 4 and 14, the claims recite, "...probe tip is able to rotate around [claim 4] / about [claim 14] an axis with a first angle." In the specification, the last lines of paragraph [0021] states: "...the metal probe tip 102, allows movement of rotating 110 with an angle  $\phi$  and diving and lifting 112 with an angle  $\theta$ ..." These claims are indefinite because the specification does not particularly point out what item(s) is being used as the axis for the probe tip to rotate around or about.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-6, 8, 10, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lockwood et al (4697143).

Regarding claim 1, Lockwood et al disclose a resilient and rugged probe [see Fig. 1], wherein the probe (11) comprising a metal probe tip (probe board tip 41), a resilient multi-layered dielectric substrate (combination of upper layer 21, metal channel 35, lower layer 25), a planar transmission structure (transmission line assembly 19), couple to the metal probe tip (41) and attached onto the resilient multi-layered dielectric substrate (21 and 35) wherein the metal probe tip (41) extends out from the planar transmission structure (19) without being attached to the resilient multi-layered dielectric substrate (21, 35 and 25) [see Fig. 3] and a fixed end (mounting block 17) coupled to the resilient multi-layered dielectric substrate (21 and 25) and the planar transmission structure (19).

Regarding claim 3, Lockwood et al disclose the metal probe tip (41) is used to probe an on-wafer (planar device 15) signal.

Regarding claim 4, Lockwood et al disclose the metal probe tip (41) may be able to rotate around an axis [axis being the planar device 15] with a first angle.

Regarding claim 5, Lockwood et al disclose the metal probe tip (41) is able to lift and dive with a second angle [see Fig. 2].

Regarding claim 6, Lockwood et al disclose the fixed end (17) is used to support and hold the probe (11) [see Fig. 1].

Regarding claim 8, Lockwood et al disclose a resilient and rugged probe [see Fig. 1] comprising a probe tip (probe board tip 41), a planar transmission structure (transmission line

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assembly 19), couple to the probe tip (41), a multi-layered dielectric material (upper layer 21, metal channel 35 and lower layer 25), coupled to the planar transmission structure (19) wherein the probe tip (41) extends out from the planar transmission structure (19) without being attached to the multi-layered dielectric material (21 and 35) and wherein the multi-layered dielectric material (21) allows a device (connector 27) to be embedded therein.

Regarding claim 10, Lockwood et al disclose the device (27) includes a vertical connector [see Fig. 1].

Regarding claim 13, Lockwood et al disclose the metal probe tip (41) is used to probe the signal of the substrate (planar device 15).

Regarding claim 14, Lockwood et al disclose the metal probe tip (41) may be able to rotate about an axis [axis being the planar device 15] with a first angle.

Regarding claim 15, Lockwood et al disclose the metal probe tip (41) is able to lift and dive with a second angle [see Fig. 2].

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8        Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lockwood et al (3596228).

         Regarding claims 9 and 11, Lockwood et al disclose a multi-layered dielectric material (upper layer 21, metal channel 35 and lower layer 25), wherein the multi-layered dielectric material (21) allows a device (connector 27) [see Fig 3] to be embedded therein. However, they do not disclose the device that includes a multi-layered microwave circuit or a matching circuit device. It is well known in the art to have different types of circuit where needed (see MPEP 2144.04 *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)). It would have been an obvious matter of design choice to have a device that includes a multi-layered microwave circuit or a matching circuit device since it would have been found obvious absent persuasive evidence that the particular components of the claimed devices was significant.

### ***Conclusion***

9.        Applicant's arguments with respect to claims 1, 3-11, 13-15 have been considered but are moot in view of the new ground(s) of rejection.

         Regarding the Information Disclosure Statement, the applicant's state in the remarks: "The reference recited in page 2, paragraph [0005] of the specification... has been submitted in a separate paper (enclosed within)..." The examiner will like to note to the applicant that no such

paper has been filed with the Amendment filed on June 3, 2003. The examiner will like to ask the applicant to resubmit that reference in replying to this office action.

10. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: regarding claim 7, the examiner was unable to locate a resilient and rugged probe comprising a fixed end is used as the probe to connect the planar transmission structure to a coaxial transmission structure.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

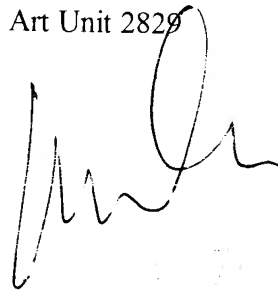
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (703) 305-1653. The examiner can normally be reached on M-F (9:00-4:30 EST) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (703) 308-1233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Jermele M. Hollington  
Examiner  
Art Unit 2829



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JMH  
September 4, 2003